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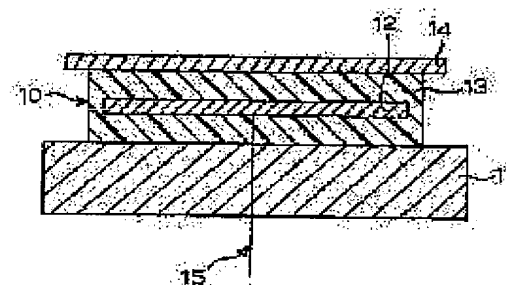
(54) ELECTROSTATIC CHUCK APPARATUS

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an electrostatic chuck apparatus in which a contact thermal resistance between the back of a substrate and an electrostatic chuck is reduced, in which the temperature on the surface of the substrate can be controlled with high accuracy and whose plasma resistance and durability are high.

SOLUTION: As an insulating layer on the electrostatic chuck 10, an insulating viscous fluid or a low-hardness gel-like substance is used at least for a first electrical insulating layer 13. Since the holding face of the layer 13 composed of the viscous fluid or the gel-like substance is deformed by following the shape of the back of the substrate 14, it adheres uniformly nearly on the whole face. The exposed face of the layer 13 may be covered with a second corrosion-resistant electrical insulating layer, and a third electrical insulating layer composed of a highly insulating layer may be arranged between the layer 13 and a metal insulating-layer support plate 11. An electrode 12 can be embedded at the inside of the layer 13, and it can be fixed and bonded to the rear surface of the second insulating layer or to the surface of the third insulating layer.

本発明の第1実施例である静電チャック装置の概略構成図



- 10 静電チャック
- 11 金属製支持板
- 12 電極
- 13 電気絶縁層（ゲル状高分子材料等）
- 14 基板（半導体ウエハ）
- 15 リード面

LEGAL STATUS

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